

### Abstract of the Disclosure

A decoding unit includes a first decoder and a second decoder. The decoding unit further includes an input/output interface for inputting received code sequences, and channel value memories  
5 for storing the received codes sequences. Placing prior values at their initial value of zero, the first decoder decodes a first block, and the second decoder decodes a second block of the received code sequences in parallel. Among the decoded results, that is, posterior values and external values, the external  
10 values are stored in an external value memory. In the next decoding, the external values are read as prior values. The decoding process is repeated by a predetermined number of times, and posterior values of the final decoded result is output from the input/output interface as the decoded result. The decoding  
15 unit can reduce the time required for decoding because of the parallel decoding of the blocks.